

Eksempler på TLS test applikationer

Siden giver eksempler på hvordan du kan benytte certifikater på Datafordeleren.



Siden indeholder ældre eksempler, som ikke er opdateret til de nye OCES3 certifikater.

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Sideinformation

Oprindelig kilde	WorkZone - 1442-0424
Forfatter	KMD
Oprettet	Mar 18, 2019
Version	1.0
Ændret	Feb 27, 2024
Sidehistorik	• Se sidehistorik

.NET

Client auth SSL

Eksemplet er oprettet for at vise Direct SSL klient certifikat autorisation på Datafordeleren.

Fremgangsmåde

- Kopier et FOCES eller VOCES service user keystore til /App_Data/ folder
- Skab en reference til filen og din adgangskode, mens du kører DataDistributor . Switchboard.Authorization.CertTest.exe
- Skift url'en til den tjeneste på Datafordeleren, som du ønsker at benytte

Status code: OK

Response Content-Type: application/json; charset=UTF8

Eksempel på output

```
{
  "datafordelerOpdateringstid": "2016-10-07T19:27:59.802+02:00",
  "adgangsadressebetegnelse": "Spaden C 2, Høje Taastrup, 2630 Taastrup",
  "afstemningsområde": {
    "id": "1566156",
    "afstemningsområdenummer": "06",
    "navn": "Gadehaveskolen"
  },
  "forretningshændelse": "3",
  "forretningsområde": "54.15.10.07",
  "forretningsproces": "0",
  "geoDanmarkBygning": "1005307686",
  "husnummerretning": "POINT(0.946085358827545 -0.32391741819815)",
  "husnummertekst": "2",
  "id_lokalId": "0a3f507d-1a3d-32b8-e044-0003ba298018",
  "id_namespace": "http://data.gov.dk/dar/husnummer",
  "jordstykke": "402274",
  "kommuneinddeling": {
    "id": "389114",
    "kommunekode": "0169",
    "navn": "Høje Taastrup"
  }
},
```

```

"menighedsrådsafstemningsområde": {
  "id": "1700977",
  "mrafstemningsområdenummer": "1",
  "navn": "Høje Taastrup"
},
"registreringFra": "2016-07-08T17:10:50+02:00",
"registreringsaktør": "DAR",
"sogneinddeling": {
  "id": "107659",
  "sognekode": "7152",
  "navn": "Høje Taastrup"
},
"status": "3",
"vejmidte": "1006309113",
"virkningFra": "2016-09-16T12:34:43+02:00",
"virkningsaktør": "Konvertering2017",
"navngivenVej": {
  "datafordelerOpdateringstid": "2016-10-07T20:23:50.386+02:
00",
  "administreresAfKommune": "0169",
  "forretningshændelse": "0",
  "forretningsområde": "54.15.10.06",
  "forretningsproces": "0",
  "id_lokalId": "55595d06-fac1-4a07-b7e8-7365fe9428cc",
  "id_namespace": "http://data.gov.dk/dar/navngivenvej",
  "registreringFra": "2016-07-08T17:10:50+02:00",
  "registreringsaktør": "DAR",
  "status": "3",
  "udtaltVejnavn": "Spaden C",
  "vejadresseringsnavn": "Spaden C",
  "vejnavn": "Spaden C",
  "vejnavnebeliggenhed_oprindelse_kilde": "Ekstern",
  "vejnavnebeliggenhed_oprindelse_nøjagtighedsklasse": "B",
  "vejnavnebeliggenhed_oprindelse_registrering": "2016-09-
01T18:20:58.068+02:00",
  "vejnavnebeliggenhed_oprindelse_tekniskStandard": "N0",
  "vejnavnebeliggenhed_vejnavneområde": "POLYGON((706160.12
6172245.95,706186.79 6172080.73,706152.796674
6172075.24276,706126.126674 6172240.46276,706160.12 6172245.95)))",
  "virkningFra": "1900-01-01T13:00:00+01:00",
  "virkningsaktør": "Konvertering2017SDFE",
  "navngivenVejKommunedelList": [
    {
      "id_lokalId": "a07f8a98-6f7e-11e6-a528-063320a53a26",
      "navngivenVejKommunedel": {
        "datafordelerOpdateringstid": "2016-10-07T20:24:18.076
+02:00",
        "forretningshændelse": "1",
        "forretningsområde": "54.15.10.06",
        "forretningsproces": "0",
        "id_lokalId": "a07f8a98-6f7e-11e6-a528-063320a53a26",
        "id_namespace": "http://data.gov.dk/dar
/navngivenvejkommunedel",
        "kommune": "0169",
        "navngivenVej": "55595d06-fac1-4a07-b7e8-7365fe9428cc",
        "registreringFra": "2016-07-08T17:10:50+02:00",
        "registreringsaktør": "DAR",
        "status": "3",
        "vejkode": "7428",
        "virkningFra": "1900-01-01T13:00:00+01:00",
        "virkningsaktør": "Konvertering2017SDFE"
      }
    }
  ]
},
"adgangspunkt": {
  "datafordelerOpdateringstid": "2016-10-07T17:45:04.681+02:
00",
  "oprindelse_kilde": "Ekstern",
  "oprindelse_nøjagtighedsklasse": "A",
  "oprindelse_registrering": "2014-11-28T13:14:48.957+01:00",
  "oprindelse_tekniskStandard": "TK",
  "position": "POINT(706176.77 6172114.13)"
},
"vejpunkt": {
  "datafordelerOpdateringstid": "2016-10-07T19:07:13.562+02:
00",
  "oprindelse_kilde": "Ekstern",
  "oprindelse_nøjagtighedsklasse": "B",
  "oprindelse_registrering": "2016-09-01T18:22:45.177+02:00",

```

```

        "oprindelse_tekniskStandard": "V2",
        "position": "POINT(706163.08 6172175.47)"
    },
    "supplerendeBynavn": {
        "datafordelerOpdateringstid": "2016-10-07T20:28:02.261+02:
00",
        "forretningshændelse": "5",
        "forretningsområde": "54.15.10.25",
        "forretningsproces": "0",
        "id_lokalId": "a684854a-3f14-438e-a763-9841ee1f12ad",
        "id_namespace": "http://data.gov.dk/dar/supplerendebynavn",
        "navn": "Høje Taastrup",
        "registreringFra": "2016-07-08T17:10:50+02:00",
        "registreringsaktør": "DAR",
        "status": "3",
        "supplerendeBynavn": "1647901",
        "virkningFra": "1753-01-01T01:00:00+01:00",
        "virkningsaktør": "Konvertering2017"
    }
}

```

Zip-fil med eksempel

[dotnet_client_auth SSL.zip](#)

SAML2 token auth

Eksemplet er oprettet for at vise SAML2 token autorisation på Datafordeleren.

Fremgangsmåde

- Kopier et FOCES eller VOCES service user keystore til /App_Data/ folder
- Skab en reference til filen og din adgangskode i Script.bat filen
- Skift url'en til den tjeneste på Datafordeleren, som du ønsker at benytte, i Script.bat filen
- Kør Script.bat filen og tjek resultatet i result.txt

Eksempel på output

```

BEGIN
Acquire saml with certificate auth token attempt
Configured certificatepath: C:\somedir\AppData\FOCES_gyldig.p12
Elapsed time in miliseconds: 769
SAML token:
PEFzc2VydGlvbiBJRD0iX2UzYzMyYTU2LTvkMzEtNDM1ZC05NTdkLTE1YzA5NTcyYzY
2MyIgsXNzdWVJbnN0YW50PSIyMDE5LTExLTU5VDEyOjE2OjQxLjAyMVoiIFZlcnpb2
49IjIuMCigeG1sbnM9InVybjpvYXNpczpuYW1lc2p0YzptQU1M0jIuMDphc3NlcnRpb
24iPjxJc3N1ZXI+aHR0cHM6Ly9zYW1sLnFhdWEta21kLmNsb3VkYXBwLm5ldC9hZGZz
L3NlcnZpY2VzL3RydXN0PC9Jc3N1ZXI+PGRzOlNpZ25hdHVyZSB4bWxuc2pkcz0iaHR
0cDovL3d3dy53My5vcmcvMjAwMC8wOS94bWxkc2lnIyI+PGRzOlNpZ25lZEluZm8+PG
RzOkNhbm9uawNhbgG1YXRpb25NZXRpb2QgQWxnb3JpdGhtPSJodHRwOi8vd3d3LnczL
m9yZy8yMDAxLzEwL3htbC1leGMyYzE0biMiIC8+PGRzOlNpZ25hdHVyZU1ldGhvZCBB
bGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sZHNpZy1tb3JlI3J
zYS1zaGEyNTYiIC8+PGRzOlJlZmVyaW5jZSBVUkk9IiNfZTNjZmFhNTYtNWQzMS00Mz
VklTk1N2QtMTVjMDk1NzJjNjYzIj48ZHM6VHJhbnNmb3Jtcz48ZHM6VHJhbnNmb3JtI
EFsZ29yaXRobT0iaHR0cDovL3d3dy53My5vcmcvMjAwMC8wOS94bWxkc2lnI2VudmVs
b3B1ZC1zaWduYXR1cmUiIC8+PGRzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly9
3d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYy
M+PGRzOkRpZ2VzdE1ldGhvZCBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIw
MDEvMDQveG1sZHNpZy1tb3JlI3JzYS1zaGEyNTYiIC8+PGRzOlJlZmVyaW5jZSBVUkk9Ii
NfZTNjZmFhNTYtNWQzMS00MzVklTk1N2QtMTVjMDk1NzJjNjYzIj48ZHM6VHJhbnNmb3Jt
c3Jtcz48ZHM6VHJhbnNmb3JtI3JzYS1zaGEyNTYiIC8+PGRzOlRyYW5zZm9yYyBBbGdvcml
0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
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OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
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OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
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OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
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aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
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LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
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aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
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aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
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OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
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zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2Rz
OlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cudzMub3JnLzIwMDEvMDQveG1s
LWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0aG09Imh0dHA6Ly93d3d3cud
zMub3JnLzIwMDEvMDQveG1sLWV4Yy1jMTRuIyIgLz48L2RzOlRyYW5zZm9yYyBBbGdvcml0
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Performing Switchboard Call with SAML2 authentication
Calling switchboard 1 times...
Calling switchboard 1
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```
Statuscode: OK
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Content: System.Net.Http.StreamContent, Headers:
{
  Transfer-Encoding: chunked
  SwitchboardPerformanceInMs: 474.0738
  Access-Control-Allow-Origin: *
  Cache-Control: private
  Date: Fri, 29 Nov 2019 12:16:41 GMT
  Server: datafordeler.dk
  X-Powered-By: datafordeler.dk
  Content-Type: application/json; charset=UTF-8
}
Elapsed time in milliseconds: 550
```

Zip-fil med eksempel

dotnet SAML2 token auth.zip

Java

Client auth SSL

Eksemplet er opprettet for at vise Direct SSL klient sertifikat autorisation på Datafordeleren.

Den originale SSL autorisationskode er uarbejdet af Pavan Solapure: <https://github.com/pavansolapure/opencodez-samples/tree/master/2-way-ssl-authentication/ssl-client/src/main/java/com/opencodez>

Dette eksempel er skabt ved at benytte Spring tool suite 4.3.2

Fremgangsmåde

- Kopier et FOCES eller VOCES service user keystore til /etc/ folder
- Skab en reference til filen og din adgangskode i `SslClientApplication.java` filen
- Skift url'en til den tjeneste på Datafordeleren, som du ønsker at benytte i `HttpClient.java`
- Kør `ClientSSLTest.java` class, som en Spring Boot app eller Java application

[illegible]

```

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\ \ / _ _ | _ | | | | | | | ( _ | | ) ) ) )
' _ | _ _ | _ _ | _ _ | _ _ | _ _ / / / / /
=====|_|=====|_|_/ / / / /
:: Spring Boot ::                (v2.1.8.RELEASE)

```

```
2019-11-29 13:39:16.508 INFO 1276 --- [main] d.k.c.
datafordeler.tests.ClientSSLTest : Starting ClientSSLTest on
yyyyyy with PID 1276 (C:
\repos\java\Workspace1\Datafordeler\ClientCertExample\target\test-
classes started by xxxxx in C:
\repos\java\Workspace1\Datafordeler\ClientCertExample)
2019-11-29 13:39:16.510 INFO 1276 --- [main] d.k.c.
datafordeler.tests.ClientSSLTest : No active profile set,
falling back to default profiles: default
2019-11-29 13:39:17.240 INFO 1276 --- [main] d.k.c.
datafordeler.tests.ClientSSLTest : Started ClientSSLTest in
1.212 seconds (JVM running for 1.682)
[{"datafordelerOpdateringstid":"2016-10-07T19:27:59.802000+02:00",
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{"datafordelerOpdateringstid": "2016-10-07T20:24:18.076000+02:00", "
forretningshændelse": "1", "forretningsområde": "54.15.10.06", "
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/supplerendebynavn", "navn": "Høje Taastrup", "registreringFra": "2016-
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00.000000+00:50", "virkningsaktør": "Konvertering2017"}]}
```

Zip-fil med eksempel

[java_client auth SSL.zip](#)

Ubuntu 19

Client auth SSL

Eksemplet er oprettet for at vise Direct SSL klient certifikat autorisation på Datafordeleren.

Bemærk, at hvis dit FOCES eller VOCES certifikat er udstedt af en anden OCES certifikatkæde skal du importere disse certifikater i PEM format og have dem installeret, som beskrevet i nedenstående.

Tjek om du har de korrekte certifikater på `/etc/ssl/certs/`

Fremgangsmåde

- Placer de følgende PEM certifikater i /etc/ssl/certs/

DigiCert_SHA2_Secure_Server_CA.pem
TRUST2408_OCES_Primary_CA.pem
TRUST2408_OCES_CA_III.pem
TRUST2408_OCES_CA_IV.pem
TRUST2408_OCES_CA_V.pem

- Kør `sudo c_rehash` for at tilføje certifikaterne til systemet.
- Kør `openssl s_client -connect datafordeler.dk:443 -cert pub.pem -key priv.key`

Tjek følgende

Er pub.pem (FOCES certifikatet i PEM-format) placeret i den korrekte folder?
Er priv.key (den private nøgle for FOCES certifikatet i PEM-format) placeret i den korrekte folder?
Er output er uden fejl og stemmer det overens med nedenstående eksempel?

[illegible]

- Hent data ved at køre curl -v --capath /etc/ssl/certs/ --cert pub.pem --key priv.key "https://certservices.datafordeler.dk/DKskaermkort/topo_skaermkort_graa/1.0.0/WMTS?SERVICE=WMTS&REQUEST=GetCapabilities" -o output.xml

Tjek følgende

Er pub.pem (FOCES certifikatet i PEM-format) placeret i den korrekte folder?
Er priv.key (den private nøgle for FOCES certifikatet i PEM-format) placeret i den korrekte folder?
Er output i xml uden fejl og stemmer det overens med nedenstående eksempel?

Eksempel på output

```
<?xml version="1.0" encoding="UTF-8"?>

-<Capabilities version="1.0.0" xsi:schemaLocation="http://www.
opengis.net/wmts/1.0 http://schemas.opengis.net/wmts/1.0
/wmtsGetCapabilities_response.xsd" xmlns:gml="http://www.opengis.
net/gml" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:ows="http://www.
opengis.net/ows/1.1" xmlns="http://www.opengis.net/wmts/1.0">

-<ows:ServiceIdentification>

<ows:ServiceType>OGC WMTS</ows:ServiceType>

<ows:ServiceTypeVersion>1.0.0</ows:ServiceTypeVersion>

</ows:ServiceIdentification>

-<ows:ServiceProvider>

-<ows:ServiceContact>

<ows:ContactInfo/>

</ows:ServiceContact>

</ows:ServiceProvider>

-<ows:OperationsMetadata>

-<ows:Operation name="GetCapabilities">

-<ows:DCP>

-<ows:HTTP>

-<ows:Get xlink:href="https://services.datafordeler.dk/DKskaermkort
/topo_skaermkort_graa/1.0.0/Wmts?">

-<ows:Constraint name="GetEncoding">

-<ows:AllowedValues>

<ows:Value>KVP</ows:Value>

</ows:AllowedValues>

</ows:Constraint>

</ows:Get>

</ows:HTTP>

</ows:DCP>

</ows:Operation>

-<ows:Operation name="GetTile">
```

```
-<ows:DCP>

-<ows:HTTP>

-<ows:Get xlink:href="https://services.datafordeler.dk/DKskaermkort
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-<ows:Constraint name="GetEncoding">

-<ows:AllowedValues>
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-<Contents>

-<Layer>
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-<ows:WGS84BoundingBox>
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-<TileMatrixSetLimits>

-<TileMatrixLimits>
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-<TileMatrixLimits>

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resourceType="tile" format="image/png"/>

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</TileMatrixSet>
```

```
</Contents>  
</Capabilities>
```

output.xml

Zip-fil med eksempel

linux_client_auth SSL_20200611.zip
